

Activity ES&H Hazard Identification Checklist

Name of Activity: _____

Activity Supervisor: (Print) _____

Location: Room _____ Building _____

ES&H Rep.'s/Coor.'s Signature _____

Employee # _____

Date _____

Group Leader's Signature
(Approved by) _____

Employee # _____

Date _____

IMPORTANT! Attach a hazard management statement for each item checked below.

Check all of the following that are applicable to/or involved with the activity. This checklist will be utilized by ESH&A in review of the activity.

A. Chemical and Biological Concerns

1. ☐ Mercury or mercury compounds (e.g. dimethyl mercury).
2. ☐ Research involving human subjects or animal studies.
3. ☐ Chemicals requiring personnel medical monitoring (see "Federally Regulated Hazards": (www.external.ameslab.gov/esh/ESH&A_Documents/FormHazardInventory.pdf)).
4. ☐ Hazardous or toxic chemicals (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAppendixA&BAcuteHazWastes.pdf).
5. ☐ Extremely hazardous substances (<http://ecfr.gpoaccess.gov/cgi/t/text?text=idx?c=ecfr&sid=5fc8e8e3aaf2d0c06a2e4422bd279c23&rgn=div5&view=text&node=40%3A27.0.1.1.11&idno=40#40:27.0.1.1.11.0.9.6.14>).
6. ☐ Flammable chemicals (flashpoint < 100°F) in quantities greater than 4 liters (1 gallon) in one room.
7. ☐ Perchloric or picric acid, peroxide-formers (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAppendicesK&L&MPeroxideFormers2.pdf).
8. ☐ Pyrophoric or explosive materials (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAppendicesH&IIncompatiblesShockers.pdf).
9. ☐ Activities that generate potentially hazardous ambient air concentrations of nanoscale and other particulates, mists, fumes, vapors, or asphyxiates.
10. ☐ Generation of chemical, mixed, or radioactive waste (as defined by the Ames Laboratory Waste Management Program Manual).
11. ☐ Generation of new waste streams, or a > 20% increase in an existing waste stream.
12. ☐ Biological materials (including human, plant or animal pathogens) (www.external.ameslab.gov/esh/ESH&A_Documents/ISUBiohazardousAgentsList.pdf).
13. ☐ Suspected and/or confirmed carcinogens (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAppendicesD&ECarcinogens.pdf).

B. Radiation Concerns

1. ☐ Radioactive materials, radiation sources.
2. ☐ Lasers (excludes laser printers and pointers).
3. ☐ Radio frequency (RF) or microwave generators (excluding personal microwave ovens) of greater than 10 watts average output power.
4. ☐ Ultraviolet radiation, which could expose personnel (e.g. arc welding, inductively coupled plasma, UV reactors, xenon lamps, etc.).
5. ☐ Generation of Radioactively contaminated waste as defined by the Ames Laboratory Waste Management Program Manual.
6. ☐ X-ray generating devices.

C. Electrical Concerns

1. ☐ Work with exposed electrical wiring or parts with voltages greater than 50 volts.
2. ☐ Work with stored energy systems (e.g. capacitor banks > 10 joules; station battery systems > 50 volts).
3. ☐ Voltage systems of greater than 600 volts.
4. ☐ Current systems of greater than 25 amps.
5. ☐ Electrical devices not certified by a Nationally Recognized Testing Laboratory (e.g. Underwriters Laboratory, CSA, etc.).

D. Environmental Concerns

1. ☐ Potential to release hazardous or radioactive materials to the sanitary or storm sewers, soil or air.
2. ☐ Potential for release of chemical, physical, radiological agents (nanoscale and other particulates, fumes, mists, or vapors) via hood or exhaust system.
3. ☐ Transportation of hazardous or radioactive materials, including laboratory-to-laboratory and on-site or off-site.
4. ☐ Activities requiring an emission permit.

E. Physical and Mechanical Concerns

1. ☐ Fabrication of major (large mass or volume) equipment, structural supports.
2. ☐ Work that is done in the proximity of floor openings or on elevated work platforms or scaffolds.
3. ☐ Activities that require use of safety eyewear, respirators and/or other forms of personal protective equipment (PPE).
4. ☐ Use of a glove box.
5. ☐ Torch work, exposed source hot-work, or exposed heat sources (e.g. welding, soldering, arc welding, furnaces, etc.).
6. ☐ Rotating parts or pinch points.
7. ☐ Fluids or gases and pressure delivery systems, other than installed building utilities (> +/- 5 psig).
8. ☐ Pressure vessels, vacuum vessels, and glass systems (> +/-5 psig).
9. ☐ Use of hoists, cranes or rigging.
10. ☐ Cryogenic systems (including thermal and/or oxygen deficiency hazards).
11. ☐ Mechanical stored energy systems (e.g. flywheels, mechanical springs, etc.).
12. ☐ Electromagnetic systems.

F. Workplace Concerns

1. ☐ Confined space (as defined by Ames Laboratory ESH&A Program Manual, Section 5.18).
2. ☐ Activities that limit means of egress.
3. ☐ Temperature or humidity extremes.
4. ☐ Work which produces acute noise that interferes with normal conversation.
5. ☐ Activities that involve tasks of prolonged repetitive motion.
6. ☐ Activities that involve lifting/moving of 20 pounds, lifting from awkward positions, or pushing/pulling of heavy objects.

G. Other Concerns

1. ☐ Activities involving sub-contractors.
2. ☐ Public tours of Ames Laboratory facilities or the use of equipment/materials for public displays.
3. ☐ Area renovation.
4. ☐ Activities that involve equipment valued at \$100,000 or more in one room or laboratory.
5. ☐ Activities to be performed at an "off-site" location (ISU lab space, field location, or other off-campus facility). Only check this item if any other item is checked.